

Amendment and Response

Serial No. 09/978,343

Filed: October 15, 2001

Title: CANDIDA ALBICANS GENE, INTEGRIN-LIKE PROTEIN, ANTIBODIES, AND METHODS OF USE

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B1 29. [Amended] The antibody of claim 28 wherein the antibody is monoclonal or polyclonal.

31. [Amended] The antibody of claim 28 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

32. [Amended] An isolated and purified antibody to a polypeptide, wherein the polypeptide consists of SEQ ID NO:3.

33. [Amended] The antibody of claim 32 wherein the antibody is monoclonal or polyclonal.

34. [Amended] An isolated and purified antibody to a polypeptide, wherein the polypeptide has the amino acid sequence of SEQ ID NO:3, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

35. [Amended] The antibody of claim 34 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

B2 36. [Amended] An isolated and purified antibody to a peptide consisting of an amino acid sequence selected from the group consisting of:

- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
- (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
- (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
- (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
- (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8).

37. [Amended] The antibody of claim 36 wherein the antibody is monoclonal or polyclonal.

38. [Amended] An isolated and purified antibody to a peptide having an amino acid sequence selected from the group consisting of:

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- (a) YLS PTN NNN SKN VSD MDL HLQ NL (SEQ ID NO:4);
- (b) DWK LED SND GDR EDN DDI SRF EK (SEQ ID NO:5);
- (c) SKS ANT VRG DDD GLA SA (SEQ ID NO:6);
- (d) DHL DSF DRS YNH TEQ SI (SEQ ID NO:7); and
- (e) WIQ NLQ EII YRN RFR RQ (SEQ ID NO:8), wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

39. [Amended] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

40. [Amended] An isolated and purified antibody to a polypeptide with integrin-like motifs encoded by a polynucleotide that hybridizes to DNA complementary to DNA having SEQ ID NO:1 under stringency conditions of hybridization in buffer containing 5x SSC, 5x Denhardt's, 0.5% SDS, 1 mg salmon sperm/25 mls of hybridization solution incubated at 65°C overnight, followed by high stringency washing with 0.2x SSC/0.1% SDS at 65°C, wherein the polypeptide with integrin-like motifs contains an I domain, two EF-hand divalent cation binding sites, a sequence sufficient to form a transmembrane domain, an internal RGD tripeptide, and a carboxy-terminal sequence having a single tyrosine residue, and wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

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41. [Amended] The antibody of claim 40 wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8.

42. [Amended] The antibody of claim 40 wherein the antibody is monoclonal or polyclonal.

44. [Amended] The antibody of claim 40 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

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45. [Amended] An isolated and purified antibody to a *Candida albicans* polypeptide encoded by a polynucleotide having SEQ ID NO:1, wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

46. [Amended] The antibody of claim 28, wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

47. [Amended] The antibody of claim 34 wherein the antibody blocks *Candida albicans* epithelial cell adhesion by at least about 50 percent.

48. [Deleted]

49. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

50. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

51. [New] The antibody of claim 32 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

52. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells.

53. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

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54. [New] The antibody of claim 36 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

55. [New] The antibody of claim 38 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

56. [New] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 30 percent.

57. [New] The antibody of claim 45 wherein the antibody blocks *Candida albicans* adhesion to epithelial and/or endothelial cells by at least about 50 percent.

58. [New] The antibody of claim 34 wherein the antibody is monoclonal or polyclonal.

59. [New] The antibody of claim 38 wherein the antibody is monoclonal or polyclonal.

60. [New] The antibody of claim 45 wherein the antibody is monoclonal or polyclonal.

61. [New] The antibody of claim 32 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

62. [New] The antibody of claim 34 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

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63. [New] The antibody of claim 36 whercin the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

64. [New] The antibody of claim 38 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

65. [New] The antibody of claim 40 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selected from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

66. [New] The antibody of claim 45 wherein the antibody blocks adhesion to epithelial and/or endothelial cells by *Candida albicans* selccted from a morphological stage of *Candida albicans* development selected from the group consisting of blastospores, germ tubes, and hyphae.

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